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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/552,488

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Hifumi Yasumatsu

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WENDEROTH, LIND & PONACK, L.L.P.

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EXAMINER

PATTERSON, MARC A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/29/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/552,488 | <b>Applicant(s)</b><br>YASUMATSU ET AL. |  |
|                              | <b>Examiner</b><br>MARC A. PATTERSON | <b>Art Unit</b><br>1794                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 17-31 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 17-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/6/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 recites the phrase ‘the joining portion’ in line 3. There is insufficient antecedent basis for this limitation in the claim.

3. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 recites the phrase ‘the joining portion’ in line 4. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 27 recites the phrase ‘the joining portion’ in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 28 recites the phrase ‘the joining portion’ in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections – 35 USC § 102(b)***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 11 – 12, 17, 19 and 30 – 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Holt et al. (U.S. Patent No. 5,070,597).

With regard to Claims 1, 11 and 17, Holt et al disclose a rubber hose comprising an inner layer, outer layer and intermediate layer comprising a friction – reducing means (column 24, lines 9 – 15; Figure 1B); Holt et al disclose walls comprising a fluororubber (fluorocarbon elastomer; column 7, lines 33 - 35) or silicone rubber (column 7, lines 31 – 32); an inner layer comprising fluororubber and an outer layer comprising silicone rubber are therefore disclosed by Holt et al; the layers comprise reinforcing yarns woven therein (column 7, lines 67 – 68); the intermediate layer is a gel (column 16, lines 29 – 30), therefore having a hardness lower than the inner and outer layers, and the intermediate adheres to the inner and outer layers, as shown in Figure 1B, and therefore has an adhesive component for adhesion with the inner layer.

With regard to Claims 3 and 19, the thickness of the fluororubber layer is set at 0.2 to 1.5 mm (column 6, lines 8 - 12).

With regard to Claims 12 and 30 – 31, a plurality of ribs are provided on the surface of the fluororubber layer, as shown in Figure 5; the claimed aspect of the ribs being embossed is directed to a process limitation and is therefore given little patentable weight.

***Claim Rejections – 35 USC § 103(a)***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 4 – 7, 18 and 20 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt et al. (U.S. Patent No. 5,070,597).

Holt et al disclose a hose as discussed above. With regard to Claims 2, 6, 18 and 22, Holt et al fails to disclose a fluorocarbon comprising a copolymer of tetrafluoroethylene and propylene and yarns comprising aramid in the amount of 5 to 40 parts by weight. However, Holt et al disclose a fluorocarbon comprising a tetrafluoroethylene (column 7, lines 31 – 33) and a yarn that is polymeric (column 8, lines 12 - 17). It therefore would have been obvious for one of ordinary skill in the art to have provided for a fluorocarbon comprising a copolymer of tetrafluoroethylene and polypropylene and a yarn comprising aramid, as a copolymer of tetrafluoroethylene and polypropylene is a fluorocarbon and aramid is a polymeric yarn. It would also have been obvious for one of ordinary skill in the art, through routine optimization, to have selected an amount of aramid depending on the desired use of the end product.

With regard to Claims 4 – 5 and 20 – 21, Holt et al fails to disclose an intermediate layer is lower by 10 to 30 in terms of the JIS hardness than those of the outer layer and inner layer and having a thickness of 0.3 to 2 mm. However, as stated above, Holt et al disclose the intermediate layer for friction reduction; it therefore would have been obvious for one of ordinary skill in the

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art to have selected a difference in hardness and thickness depending on the desired friction reduction of the end product.

With regard to Claims 7 and 23, Holt et al fail to disclose a fluororubber layer comprising 0.5 to 10 parts by weight silicone oil. However, Holt et al disclose a fluororubber layer comprising oil as a plasticizer (column 7, lines 38 - 40) and Holt et al teach silicone oil as an example of an oil of the invention (column 12, lines 9 - 10). It would therefore have been obvious for one of ordinary skill in the art to have provided for silicone oil, and to have selected an amount of the oil depending on the desired use of the end product.

10. Claims 8 – 10, 13 and 24 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt et al. (U.S. Patent No. 5,070,597) in view of Zama et al (U.S. Patent No. 5,171,787).

Holt et al disclose a hose as discussed above. With regard to Claims 8 - 10, 13 and 24 – 29, Holt et al fail to disclose an intermediate layer comprising 2 to 15 parts by weight magnesium oxide and 1 to 15 parts by weight triallyl isocyanurate and 0.5 to 10 parts by weight silane coupling agent.

Zama et al teach a silicone (column 2, lines 19 – 21) comprising 2 to 15 parts by weight magnesium oxide and 1 to 15 parts by weight triallyl isocyanurate crosslinking agent and 0.5 to 10 parts by weight of a silane coupling agent (Table) for the purpose of obtaining silicone having high mechanical strength (column 1, lines 6 - 9).

It therefore would have been obvious for one of ordinary skill in the art to have provided for a 2 to 15 parts by weight magnesium oxide and 1 to 15 parts by weight triallyl isocyanurate crosslinking agent and 0.5 to 10 parts by weight of a silane coupling agent, in order to obtain a

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silicone having high mechanical strength as taught by Zama et al. Holt et al disclose a second intermediate layer, as shown in Figure 11; Holt et al would therefore disclose a second silane coupling agent comprising an organosilane adhesive between the fluororubber layer and intermediate layer.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/  
Primary Examiner, Art Unit 1794